



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

h✓

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,753	10/06/2003	Martin Lambert	15540-010001 / 18.00277;	6623
26161	7590	06/27/2007	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			ELVE, MARIA ALEXANDRA	
ART UNIT	PAPER NUMBER		1725	
MAIL DATE	DELIVERY MODE		06/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/678,753	LAMBERT, MARTIN
	<b>Examiner</b>	<b>Art Unit</b>
	M. Alexandra Elve	1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-9 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 06 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/6/03</u> .   | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### ***Specification***

The disclosure is objected to because of the following informalities: "claim 4" appears in the text of the specification. Specific claim numbers cannot appear in a specification because they may change during prosecution and hence would render the specification inoperable.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5 & 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shioji (USPN 5,763,855).

Shioji discloses a laser beam machine having nitrogen gas supplied to the optical path. A relief valve (35) is connected to a discharge port (chamber) (34). The pressure within the optical path cover of the optical system is kept higher than the atmospheric (outside air) pressure. It is possible to construct the optical path cover in such a way that part of the supplied gas can be discharged to the outside through an appropriate gap formed between the connection portions of some elements of the optical path cover. Thus is this embodiment in order to maintain the pressure within the optical path cover

under a stable constant value, a discharge port is formed at a position of the optical path cover and further a relief valve is connected to this discharge port. Consequently, the inner pressure within the optical path cover can be maintained at a substantially constant level through the relief valve, even if the volume of the optical path cover is decreased or increased and thereby the inner pressure thereof is increased or decreased, for example when the laser beam head is moved.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 & 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioji, as stated above and further in view of Riedlinger et al. (USPN 5,895,208).

Shioji discloses a relief valve but not the specific components of the valve.

Riedlinger et al. discloses a pressure relief valve. The pressure relief valve has a disc with a central mount, preferably by a pin penetrating it and the valve seat or the valve disc on the side.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a pressure relief valve with a disc and pin as taught by Riedlinger et al. in the Shioji system because this is merely a common embodiment of a pressure relief valve.

Claims 6 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioji, as stated above and further in view of Weick et al. (USPN 5,811,753).

Shioji discloses that the pressure within the optical path cover of the optical system is kept higher than the atmospheric (outside air) pressure, but does not teach dealing with an overpressure.

Weick et al. disclose a laser beam machine having a gas filled beam conduit. The beam conduit is filled with air and a limited amount of CO<sub>2</sub>. An adjustable outlet filter on the outlet hole is used to regulate/vent the excess pressure inside the beam delivery tube.

It would have been obvious to one of ordinary skill in the art at the time of the invention to regulate/vent excess pressure as taught by Weick et al. in the Shioji system because it keeps a constant pressure (stable constant value) in the optical path.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 6:30-3:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jonathan Johnson can be reached on 571-272-1177. The fax phone

Art Unit: 1725

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 23, 2007.



M. Alexandra Elve  
Primary Examiner 1725